19

Pat 1
3152
5122

JOURNAL

OF THE

American Veterinary Medical Association

FORMERLY

AMERICAN VETERINARY REVIEW

Original Official Organ U. S. Vet. Med. Ass'n.

Edited and Published for the

AMERICAN VETERINARY MEDICAL ASSOCIATION

By

H. PRESTON HOSKINS, DETROIT, MICH., and CHICAGO, ILL.

EXECUTIVE BOARD

R. S. MacKellar, Member-at-Large and Chairman;
R. R Dykstra, ex officio; Maurice C. Hall, ex officio;
Geo. Hilton, 1st District; E. P. Althouse, 2nd District; L. A. Merillat, 3rd District;
C. A. Cary, 4th District; C. P. Fitch, 5th District; L. M. Hurt, 6th District;
C. H. Hays, 7th District; N. F. Williams, 8th District; D. H. Udall, 9th District;
O. V. Brumley, 10th District.

Volume LXXX

NEW SERIES VOLUME 33

JANUARY, 1932, to JUNE, 1932

CHICAGO, ILL.

1932

SF601
.A5

INDEX OF AUTHORS

Austin, Harold, 414.
Baker, D. D., 360.
Barto, L. R., 251.
Beach, B. A., 446.
Beach, J. R., 496.
Biely, Jacob, 634.
Bishop, Lucille, 69.
Boyd, W. L., 69.
Brandly, C. A., 782.
Bryant, John B., 213.
Buck, J. M., 342.
Bullis, K. L., 641.
Bunyea, Hubert, 491.
Bushnell, L. D., 782.
Busic, W. H., 765.
Cain, C. B., 225.
Clarke, Mariam K., 641.
Cole, H. H., 604.
Connaway, J. W., 293.
Cross, Floyd, 711.
Cotton, W. E., 18, 342.
Crawford, A. B., 18.
Curphey, Theodore J., 886.
Daines, Lyman L., 414.
Dibbell, E. B., 149.
Donham, C. R., 839.
Doyle, L. P., 103, 356.
Dunlap, Glen L., 880.
Dunlap, Renick William, 290.
Eastman, D. A., 751.
Edwards, Philip R., 891.
Ehlers, D. P., 236.
Evans, W. A., 370.
Fabian, F. W., 921.
Farley, Herman, 165, 173.
Feldman, William H., 904.
Fenstermacher, R., 791.
Fish, Frederic F., 543.
Fitch, C. P., 69, 839.
Flint, O. S., 641.
Frank, E. R., 759.
Giltner, Ward, 375.
Graham, Robert, 863, 909.
Gray, Lyle, 106.
Grey, C. G., 80.
Hall, Walter J., 491.
Hammers, L. A., 197.
Hanson, Karl B., 202.
Harper, Fred R., 637.
Hart, G. H., 604.
Hinshaw, W. R., 765.
Johnson, S. R., 745.
Johnson, T. W., 254.
Kelser, R. A., 87.
Kernkamp, H. C. H., 229.
Kershaw, C. J., 642.
Kester, Bruce, 254.
Kitselman, Chas. H., 828.
Khuen, E. C., 30.
Koen, J. S., 379.
Larson, V. S., 446.
Lewis, W. K., 333.
Little, Ralph B., 922.
Lockhart, Ashe, 745.
Lubbehusen, R. E., 236.
McCapes, A. M., 187.
McCulloch, E. C., 686.
McNutt, S. H., 336.
Malcolm, Peter, 96.
Marshall, C. J., 625.
Martinaglia, G., 805.
Moguel M., Francisco, 305.
Mohri, R. W., 87.
Morris, Harry, 11.
Murray, Chas., 336.
Myers, J. Arthur, 914.
Newsom, I. E., 711.
Niemann, K. W., 765.
Palmer, C. C., 59.
Pierce, Geo. H., 505.
Purwin, Paul, 336.
Rawson, G. W., 600.
Rebrassier, R. E., 895.
Rich, T. S., 386.
San Agustin, Gregorio, 100.
Schalk, A. F., 52, 436.
Schlingman, A. S., 729.
Schlotthauer, Carl F., 158.
Scott, Joseph P., 173, 848.
Seifried, O., 225.
Skidmore, Louis V., 800.
Smiley, H. D., 560.
Stafseth, H. J., 80, 467.
Stewart, J. R., 108.
Stubbs, E. L., 802.
Thompson, W. W., 80, 467, 921.
Thorp, Frank, Jr., 863, 909.
Tunnicliff, E. A., 250, 615.
Turner, Henry W., 697.
Tyszer, Ernest Edward, 474.
Van Roekel, Henry, 641.
Wagener, Kurt, 39, 579.
Welch, Howard, 778.
Wight, A. E., 399.
Wilson, H. A., 720.
Wisnicky, W., 446.
Witter, J. F., 104.

LIST OF ILLUSTRATIONS

CARTOON, WILL YOU BUILD? 3.

A STUDY OF INTESTINAL PARASITES IN HORSES AND MULES IN LOUISIANA, WITH SPECIAL REFERENCE TO THE CONTROL OF COLIC, 11.

Fig. 1. Section of colon of horse, 14.

COMPARATIVE GERMICIDAL TESTS OF MERCUROCHROME AND TINCTURE OF IODIN, 87.

Fig. 1. Apparatus used for washing suspensions of bacteria, 91.

PARAPLEGIA INDUCED BY OSTEOPOROSIS, 100 .

Fig. 1. Ventral view of macerated lumbar vertebrae showing exostoses, 101.

UNUSUAL SARCOMA IN A CHICKEN, 104.

Fig. 1. Sarcoma, 104.
Fig. 2. Cloacal portion of tumor (x 55), 105.
Fig. 3. Same as figure 2 (x 500), 105.

LYMPHATIC LEUKEMIA, 106.

Fig. 1. Lymphatic leukemia, 107.

PHOTOGRAPH, AMERICA'S MOST TYPICAL BOY AND DOG, 118.

THE TREATMENT OF FRACTURES, 149.

Fig. 1. Exhibit entitled, "Snap Shots on Fracture Treatment in Small Animals," 153.

NITROBENZENE POISONING IN THE DOG, 254.

Fig. 1. Position assumed by dogs between attacks, 254.
Fig. 2. One of the positions assumed during an attack, 254.

THE RELATION OF AGGLUTINATION REACTION TO SALMONELLA PULLORUM INFECTION IN HENS AND OBSERVATIONS ON THE DIAGNOSTIC EFFCIENCY OF TEST METHODS, 491.

Fig. 1. Chart showing percentage of reactors to tube and whole-blood, rapid tests, 491.
Fig. 2. Charts showing percentage of agreement, 495.

SOME FURTHER EXPERIMENTS WITH LUMBAR ANESTHESIA IN CANINES, 560.

Fig. 1. Sixth and seventh lumbar vertebrae and sacrum, 563.
Fig. 2. Sixth and seventh lumbar vertebrae and sacrum (processes lower), 563.
Fig. 3. Land marks for the point of injection, 563.
Fig. 4. Black line indicates location of jodipin, 566.
Fig. 5. Injection shown as far forward as atlanto-axial articulation, 567.
Fig. 6. Proper position of the needle, 567.

A PRACTICAL METHOD FOR THE DIAGNOSIS OF PREGNANCY IN THE MARE, 604.

Fig. 1. Vaginal smears at various periods of the oestrous cyle, 609.
Fig. 2. Reactions in rats, 611.

AORTIC THROMBOSIS IN A DOG, 637.

Fig. 1. Clot lodged at the bifurcation of the aorta, 638.
Fig. 2. Section through the clot, 639.
Fig. 3. Longitudinal section of the aorta, 639.

PHOTOGRAPH, THE PRAIRIE FARMER BUILDING, 680.

FIELD AND EXPERIMENTAL STUDIES OF SHEEP DISEASES, 697.

Fig. 1. Main sheep barn, showing original hay-feeding racks, from rear, 706.
Fig. 2. No. 3 barn, showing improved hay-racks, with partitions, from rear, 708.

STUDIES ON CANINE DISTEMPER, 729.

Fig. 1. Temperature chart of dog 101, an uncomplicated case of *Bacillus bronchisepticus* infection, 737.

STUDIES OF TUBERCULOSIS OF TURKEYS, 765.

Fig. 1. Lesions of tuberculosis in the intestine (turkey), 769.
Fig. 2. Lesions of tuberculosis in the muscles (turkey), 769.
Fig. 3. Lesions of tuberculosis in the heart (turkey), 770.
Fig. 4. Lesions of tuberculosis in the liver (turkey), 770.
Fig. 5. Possible areas for injection of tuberculin in turkeys. A, wattle; B, snood; C, edge of wing-web; D, center of wing-web, 774.

OSTEOGENIC CHONDROSARCOMA IN A DOG, 802.

Fig. 1. X-ray of osteogenic chondrosarcoma, 803.
Fig. 2. Two front limbs compared. Upper, normal; lower, tumor, 803.
Fig. 3. Sliced osteogenic chondrosarcoma, 804.
Fig. 4. Photomicrograph of osteogenic chondrosarcoma, 804.

THE FATE OF ANTHRAX BACILLI IN TICKS FROM AN ANTHRAX CARCASS, 805.

Fig. 1. Anthrax bacilli in blood-smear of infected cow, 806.
Fig. 2. Anthrax bacilli in smear made from intestinal contents of blue tick, 806.

IDIOPATHIC ANEMIA IN NEWBORN PIGS, 863.

Fig. 1. Two pigs, farrowed one day apart, illustrate effect of anemia on growth and development, 864.
Fig. 2. Graph of hemoglobin indices of pigs on range, and in confinement, with and without access to pasture dirt, 866.
Fig. 3. Graph of hemoglobin indices of pigs on pasture, and in confinement, with and without $MgSO_4$ to sows, 867.
Fig. 4. Graph of hemoglobin indices of pigs receiving bacterial toxins, 868.
Fig. 5. Gross pathology in secondary pig anemia, 869.
Fig. 6. Cut section of liver of pig that suffered from secondary anemia, 870.
Fig. 7. Hyperplastic bone-marrow in secondary anemia, 870.
Fig. 8. Histopathologic section of liver of pig in figure 10, 871.
Fig. 9. Pig suffering from idiopathic anemia, 872.
Fig. 10. Pig showing cutaneous hyperemia and edema extending over the facial region and ears, 872.
Fig. 11. Cross section of edematous ear of pig in figure 10, 873.

AN ATAXIA OF CHICKS ASSOCIATED WITH NEPHRITIS, 880.

Fig. 1. Group of chicks affected with an ataxia associated with nephritis, 881.
Fig. 2. Photomicrograph of kidney of "crazy chick," 883.
Fig. 3. Proventriculus, 883.

OBSERVATIONS ON THE TRANSMISSIBILITY OF HOG CHOLERA AND ITS PREVENTION BY QUARANTINE, 886.

Fig. 1. Schematic drawing of floor plan of quarantine pen, 887.
Fig. 2. Typical temperature curve of animal during stay in quarantine pen, 889.
Fig. 3. Temperature curve of animal "accidentally" infected with hog cholera, 890.

A VARIANT OCCURRING NATURALLY IN CULTURES OF SALMONELLA PULLORUM, 891.

Fig. 1. Secondary colonies appearing on 30-day cultures of *S. pullorum* (x¾), 891.
Fig. 2. Colonies of parent strain and large-colony-forming variant of *S. pullorum* (natural size), 892.

BLOOD-CELL COUNTS IN ACUTE AVIAN LARYNGOTRACHEITIS, 909.

Fig. 1. Graph showing erythrocyte counts in 71 chickens suffering from acute laryngotracheitis, 910.
Fig. 2. Graph showing leucocyte counts in 71 chickens suffering from acute laryngotracheitis, 911.

DEMODECTIC (FOLLICULAR) MANGE IN CATTLE, 922.

Fig. 1. Demodectic mange mites and débris (x 42), 923.
Fig. 2. Cow 7702, showing lesions of demodectic mange over the withers and on the neck, 925.

INDEX OF SUBJECTS

Abstracts:

Acid-Fast Bacteria in Soils, The Distribution of, 647.

Ancylostoma Caninum, and the Inflammatory Reaction to Skin Penetration, Cutaneous Retention of Infective Larvae of the Dog Hookworm, 808.

Anthrax in White Mice, Effect of Bacteriophage on Experimental, 112.

Asbestosis in a Dog, Pulmonary, 646.

B. Aertrycke, Spontaneous and Experimental Infection of Pigeons with, 113.

Bact. Tularense in the Eastern Wood Tick, *Dermacentor Variabilis*, The Occurrence of, 264.

Bacteriophage and Its Practical Difficulties, The Therapeutic Use of, 260.

Bacteriophage on Experimental Anthrax in White Mice, Effect of, 112.

Blood of the Subcutaneous Injection of Normal Salt Solution into Normal Dogs and into Dogs Subjected to Intestinal Trauma, Graded Hemorrhage, and Histamine Injection, The Effects on the Composition of, 938.

Blood-Stream, Conditions Influencing the Disappearance of Living Bacteria from the, 932.

Blood When No Fluids are Injected and When Fluids are Injected Intravenously, A Study of the Effects of Hemorrhage, Trauma, Histamine, and Spinal Anesthesia on the Composition of the, 937.

Bronchitis, The Influence of Environmental Temperature on the Mortality in Chicks Inoculated with the Virus of Infectious, 644.

Bronchitis, with Special Reference to the Carrier State, Some Observations on the Distribution of Virus in the Body of Birds Affected with Infectious, 643.

Brucella Abortus Infection in Guinea Pigs: The Effect of Convalescent and of Hyperimmune Serum, The Prevention of, 931.

Brucella Abortus of Bovine and Porcine Origin, Complement-Binding Properties of, 807.

Brucella Abortus of Bovine, Porcine and Equine Origin, 111.

Brucella Abortus with Special Reference to Pasteurization, Lethal Temperatures for Porcine Strains of, 646.

Brucella Group, Microbic Dissociation in the, 262.

Carrier State, Some Observations on the Distribution of Virus in the Body of Birds Affected with Infectious Bronchitis, with Special Reference to the, 643.

Carriers of *Clostridium Tetani* and Immunity, Intestinal, 263.

Ceca of Fowls, Some Pathological Conditions Found in the, 110.

Clostridium Tetani and Immunity, Intestinal Carriers of, 263.

Coccidia of the Domestic Rabbit Based on a Study of the Oöcysts, Species Differentiation of the, 113.

Coccidial Oöcysts on a Poultry Farm in Maryland, The Distribution of, 110.

Coccidiosis in Chickens Kept under Sanitary Conditions, The Influence of Diet on the Development of Experimental, 807.

Colostrum of the Cow, Agglutinin, Complement, and Chemical Composition of the, 109.

Diet on the Development of Experimental Coccidiosis in Chickens Kept under Sanitary Conditions, The Influence of, 807.

Dirofilaria Immitis (Leidy) and Its Culicine Intermediate Hosts, Studies of Host-Parasite Relationships of, 265.

Dissociation in the Brucella Group, Microbic, 262.

Eimeria Tenella in the Chicken, Quantitative and Statistical Analysis of Infections with, 264.

Epinephrine Injection in Dogs, Some Chemical Effects from Constant Intravenous, 809.

Foot-and-Mouth Disease through a New Series of Graded Collodion Membranes, Filtration of the Virus of, 644.

Fowl Cholera, The Effect of Radiation on the Resistance of Chickens to, 809.

Fowl Cholera, The Epidemiology of, 811.

Fowl Cholera, The Persistence of *Pasteurella Avicida* in the Blood and Organs of Fowls with Spontaneous, 931.

Fowl-Pox by Mosquitoes, The Transmission of, 110.

Heptylresorcinol, A Comparison of the Anthelmintic Properties of Hexylresorcinol and, 809.

Hexylresorcinol and Heptylresorcinol, A Comparison of the Anthelmintic Properties of, 809.

Hyperparathyroidism, The Influence of Age and Duration of Treatment on the Production and Repair of Bone Lesions in Experimental, 812.

Immunization, Further Studies in Antirabies, 643.

Immunization with Bacterial Bodies Against Tetanus, A Study of, 263.

Intravenous Injections. A Study of the Composition of the Blood during Continuous Trauma to the Intestines While No Fluid Is Injected and While Fluid is Injected Continuously, 935. A Study of the Effects on the Composition of the Blood of the Injection of Various Fluids into Dogs with Normal and with Low Blood-Pressures, 935.

Iron in Tuberculous Areas. The Accumulation of, II. Survival Time of Tuberculous Rabbits Injected with Ferric Chloride, 812.

Laryngotracheitis, A Study of Mortality and Egg-Production in Flocks Affected with Infectious, 259.

Leg-Weakness Affecting Chicks, A Type of Nutritional, 643.

Leucosis of Fowls, Studies on the Nature of the Agent Transmitting, I. Its Concentration in Blood-Cells and Plasma and Relation to the Incubation Period, 934. II. Filtration of Leucemic Plasma, 935. III. Resistance to Desiccation, to Glycerin, to Freezing and Thawing: Survival at Ice-Box and Incubator Temperature, 935.

Leukemia in a Cat, Mast Myelocyte, 646.

"Louping Ill," Some Data Concerning the Infectivity, Survival, and Powers of Diffusion of the Virus of, 645.

"Mad Itch" with Special Reference to Its Relationship to Pseudorabies, An Experimental Study of, 114.

Mosquitoes, The Transmission of Fowl-Pox by, 110.

Mucus Secretion in Acute Experimental Inflammation of the Colon, and Other Mucous Membranes of the Cat, Histological Changes, 262.

N-Butylidene Chloride, A New Drug for the Treatment of Equine Strongylosis, 109.

Papillomatosis of Dogs, Infectious Oral, 810.

Pasteurella Avicida in the Blood and Organs of Fowls with Spontaneous Fowl Cholera, The Persistence of, 931.

Pasteurization, Lethal Temperatures for Porcine Strains of *Brucella Abortus* with Special Reference to, 646.

(Rabies) An Experimental Study of "Mad Itch" with Special Reference to Its Relationship to Pseudorabies, 114.
(Rabies) Further Studies in Antirabies Immunization, 643.
Radiation on the Resistance of Chickens to Fowl Cholera, The Effect of, 809.
Salmonella Pullorum, Variants of, 932.
Sarcoma, The Effect of Testicle Extract on Rous, 260.
Skin Lesions of Tuberculin-Reacting Cattle, Bacteriology of, 259.
Strongylosis, N-Butylidene Chloride, A New Drug for the Treatment of Equine, 109.
Testicle Extract on Rous Sarcoma, The Effect of, 260.
Tetanus, A Study of Immunization with Bacterial Bodies Against, 263.
Thymus Extirpation in the Laying Hen. 261.
Transmutation of Acid-Fast Microörganisms and Virulence of Tubercle Bacilli, Tinctorial, 261.
Tubercle Bacilli, Action of Acetone Extracts of, 933.
Tubercle Bacilli, Early Cellular Reaction to,: A Comparison of this Reaction in Normal and Tuberculous Guinea Pigs and in Guinea Pigs Immunized with Dead Bacilli. 645.
Tubercle Bacilli in the Organs of Tuberculous Rabbits, The Correlation between the Histological Changes and the Fate of Living, 810.
Tubercle Bacilli, The Effect of Mechanical Grinding on, 648.
Tubercle Bacilli, Tinctorial Transmutation of Acid-Fast Microörganisms and Virulence of, 261.
Tuberculin by Coal Dust, Adsorption of, 644.
Tuberculin-Reacting Cattle, Bacteriology of Skin Lesions of, 259.
Tuberculin Reactions, The Specificity of Avian, 112.
Tuberculosis in Monkeys, The Diagnosis of, 933.
Tuberculosis in Normal and Vaccinated Rabbits, Avian, 111.
Tuberculous Infection by Way of the Female Genital Tract, A Study of, 647.
Tuberculous Rabbits Injected with Ferric Chloride. II. Survival Time of, The Accumulation of Iron in Tuberculous Areas, 812.
Tularemia in Norway, 111.
Tumor, Properties of the Causative Agent of a Chicken, II. The Inactivation of the Tumor-Producing Agent by Monochromatic Ultraviolet Light, 934.
Ultraviolet Light, II. The Inactivation of the Tumor-Producing Agent by Monochromatic, Properties of the Causative Agent of a Chicken Tumor, 934.

Army Veterinary Service:

Changes Relative to Veterinary Officers, 117, 268, 532, 649, 813, 939.

Association News:

American Veterinary Medical Association:

Affiliation, Favorable Action on, 286.
Applications for Membership, 6, 147, 287, 541, 683, 825.
Executive Board Elections, 284, 539, 682, 824.
Executive Board, Résumé of Minutes of Special Meeting of the, 121.
Illinois Veterinarians at Kansas City, 120.
Organization of the American Veterinary Medical Association, 1931-32, 123.
Plans for Atlanta, 285.

Report:

Financial Report—Dr. M. Jacob, Treasurer, 288.

U. S. Live Stock Sanitary Association:

Address of the President, The. 293.
Address, Opening, 290.
Election of Officers, 527.
Installation of Officers, 528.

Reports:

Bang's Disease, Committee on, 323.
Parasitic Diseases, Committee on, 484.
Resolutions, Committee on, 517.
Secretary-Treasurer, Financial Statement, 531.
Tick Eradication, Committee on, 516.
Transmissible Diseases, Committee on Miscellaneous, 509.
Transmissible Diseases of Poultry, Committee on, 506.
Transmissible Diseases of Swine, Committee on, 366.
Tuberculosis, Committee on, 525.
Unification of Laws and Regulations, Committee on, 512.

Other Meetings:

Alabama Short Course for Graduate Veterinarians, 665.
Arizona and New Mexico Veterinarians Plan Joint meeting, 812.
Arkansas Veterinary Medical Association, 276.
California Veterinary Conference, 38.
Central New York Veterinary Medical Association, 134.
Connecticut Veterinary Medical Association, 130.
Denver Allied Veterinarians, 668.
East Tennessee Veterinary Medical Society, 817.
Eastern States Conference on Bang's Disease, Third, 131.
Hudson Valley Veterinary Medical Society, 664.
Illmo Veterinary Medical Association, 816.
(Indiana) Tenth District Veterinary Association, 137.
Intermountain Livestock Sanitary Association, 657.
Manitoba Veterinary Association, 667.
Maryland State Veterinary Medical Association, 651.
Nebraska State Veterinary Medical Association, 271.
Nevada State Veterinary Association, 661.
New Jersey, Veterinary Medical Association of, 657.
New York City, Veterinary Medical Association of, 130, 814, 946.
New Mexico Veterinary Medical Association, 273, 812.
Northeastern Indiana Veterinary Medical Association, 136.
Northwestern Illinois Veterinary Medical Association, 137.
Northwestern Pennsylvania Veterinary Medical Club, 816.
Ohio State University Veterinary Conference, 270, 942.
Ohio State Veterinary Medical Association, 275.
Oklahoma Veterinary Medical Association, 660.
Pennsylvania, Conference of Veterinarians at University of, 655.
Philippine Veterinary Medical Association, 128.
Pullorum Disease Control, Fifth Annual Conference of Workers in, 814.
Rock County (Wis.) Veterinary Medical Association, 817.
Saginaw Valley (Mich.) Veterinary Medical Association, 669.
South Dakota Veterinary Medical Association, 662.
Southeast Kansas Veterinary Medical Association, 655.
Southeastern Wisconsin Veterinary Association, 135.
Southern Ohio Veterinary Association, 946.
Texas, State Veterinary Medical Association of, 658.
Tri-County (Minn.) Veterinary Association, 134.
Twin City Veterinary Medical Association, 668.
West Virginia Veterinary Medical Association, 136.

Western Michigan Veterinary Medical Association, 135.
Western New York Veterinary Medical Association, 137.

Births.....141, 281, 677, 818, 951.

Book Reviews:

Approved Laboratory Technic, 115.
Hygiene and Preventive Veterinary Medicine, The Principles of Animal, 928.
Neoplasms of Domesticated Animals, 927.

Clinical and Case Reports:

Anthrax Bacilli in Ticks from an Anthrax Carcass, The Fate of, 805.
Brucelliasis, Susceptibility of Chickens to, 641.
Calcium Deficiency in Eclampsia, 251.
Chondrosarcoma in a Dog, Osteogenic, 802.
Cooperia Oncophora and *Nematodirus Helvetianus* in Calves, The Occurrence of, 250.
Eclampsia, Calcium Deficiency in, 251.
Hernia in a Cat, Diaphragmatic, 642.
Leukemia, Lymphatic, 106.
Mange in Cattle, Demodectic (Follicular). 922.
Molds in Respiratory Tract of Chickens, 921.
Nematodirus Helvetianus in Calves, The Occurrence of *Cooperia Oncophora* and, 250.
Nitrobenzene Poisoning in the Dog, 254.
Oestrus Ovis, Treatment for, 108.
Osteoporosis, Paraplegia Induced by, 100.
Paralysis in a Lamb Due to Hemorrhage in the Spinal Cord, Posterior, 103.
Paraplegia Induced by Osteoporosis, 100.
Sarcoma in a Chicken. Unusual. 104.
Thrombosis in a Dog, Aortic, 637.
Trichostrongylus Colubriformis (= *T. Instabilis*) in the Jack Rabbit (*Lepus Californicus melanotis*), 800.

Commencement:

Ontario Veterinary College, 941.

Communications:

International Veterinary Congress Reports, 267.
Missouri Valley Veterinary Association to Disband, 940.
Veterinary Reserve Corps, 267.

Editorials:

Address, Changes of, 145.
Addresses Wanted, 6.
Anaplasmosis, More Light on, 540.
Assistant? Can You Use an, 680.
Atlanta, On to, 821.
Colorado Joins the List, 4.
Different, 822.
Directory Distributed, 537.
Dykstra on Numerous Programs, President, 5.
Enemy Reappears, An Old, 823.
Fault, Not Our, 681.
Hog Cholera Held in Check, 5.
Horse, In Favor of the, 143.
Insurance, Liability, 539.
Iowa Objectors See the Light, 1.
Line, Drawing the, 283.
Location, Our New. 679.
Marshall on Permanent Commission. Doctor, 540.
Meetings, Officers Represent A. V. M. A. at Winter, 286.
Move Again, We, 541.
Ohio Giver. Clean Slate, Wisconsin and. 144.
Practitioners' Number, A, 144.
Profession? What of the, 2.
Settled, Getting, 823.
Veterinary Journal in Altered Format, 541.
Wisconsin and Ohio Given Clean Slate, 144.

Examinations, State Board 10, 636, 817, 827.

Examinations, U. S. Civil Service ..... 710.

Marriages.....281, 677, 818.

Meetings, Coming Veterinary.. 8, 148, 287, 542, 684, 826.

Miscellaneous:

Airplane Used in Fluke Control, 119.
Animaldom, 196.
Animals, Be Kind to, 719.
Anniversary, Golden Wedding, 813.
Bang's Disease, Pennsylvania Adopts New Regulation to Restrict, 908.
Benefactor of the Human Race (Koch), A Great, 728.
Bird Department Added, 894.
Broadcasting Program, 51, 913.
Bureau Transfers, 648, 820.
Butter Seized, 276.
Chappel Award, Eastern Boy Scout Wins, 118.
Co-Eds at Ohio, No Veterinary, 114.
Congress, London, 1930, Eleventh International Veterinary, 650.
Congress Postponed, American Scientific, 99.
Cream Seized, "Embalmed," 117.
Directory, Comments on the, 744.
Disinfectants Described, Methods for Testing Antiseptics and, 228.
Disinfectants Investigated, Premise, 157.
Drugs Detained in 1931, Small Percentage of, 86.
Exhibit, Dog-Owners See Veterinary, 614.
Feeder Cattle Deferred, Proposed Restrictions on, 838.
Fish Billed as "Lumber," Seize, 599.
Food and Drug Act Proposed, Change in, 599.
Four-H Club Boys, Prizes for, 636.
German Veterinarian Lectures at Pennsylvania, 719.
Hall Lectures in Porto Rico, Doctor, 920.
Hoskins Memorial Medal, Wins, 532.
Iowa State College, Honor Society Installs Chapter at, 269.
K. S. C. Prizes, 879.
Koch's Discovery, Anniversary of, 669.
Meat Inspection Established, 636.
Missouri Valley Veterinary Association Votes on Disbanding, 744.
Missouri Veterinarians, Special Course for, 29.
Nutrition Studies Reviewed in New Publication, World-Wide, 258.
Patterson-Harwood Laboratories Expand, 939.
Penalties Imposed for Obstructing Tests, 885.
Protozoan Decimates Ducks, 79.
Psittacosis in California, 624.
Rabbits Unfit for Food, Seize, 186.
Range Cattle Being Tested, 614.
Sanitation Increases Profits, Swine, 95.
Schoening Now Chief, Doctor, 649.
Scholarship, Wins, 781.
Stabilization in Merchandising, 212.
Tolerances and Analytical Methods Recommended, 268.
Tuberculin Test, Confidence in the, 99.
Tuberculosis Shown by Survey, Continued Reduction of Bovine, 941.
Tularemia in Michigan, 120.
Veterinarians, 633.
Wisconsin, Cooperative Project at, 908.

Necrology:

Allen, F. E., 677.
Ambler, Henry B., 277.
Baker, A. H., 533.
Barber, James L., 140.
Barnes, J. B., 949.
Baynes, Charles, 672.
Beavers, Joseph A., 670.
Bernhard, Isidor, 949.
Boehme, Herman, 950.
Boshart, C. Ralph, 535.
Brobeck, Ivan J., 140.
Brown, Charles Cooper, 674.
Buchmann, Robert A., 536.

Campbell, Hilary J., 139
Chapman, Harry Otis, 277.
Deadman, John F., 947.
Draper, James Powell, 672.
Farnsworth, Geo. K., 949.
Fox, Le Roy B., 671.
Gould, J. N., 673.
Graham, William Chester, 675.
Harrison, Robert H., 138.
Hemmy, Christian David, 138.
Howard, Thomas B., 140.
Kaiser, William F., 949.
Kinnett, E. H., 675.
Knight, W. A., 140
Lang, Ernest F., 950.
Lehman, C. W., 278.
McEwan, William A., 677.
Marsh, Charles Dwight, 948.
Miles, William V., 951.
Murray, William H., 280.
Orr, Hugh S., 951.
Osborn, Carlton Ray, 671.
Phelps, L. B., 280.
Reynolds, George M., 280.
Robinson, E. D., 141.
Ruth, Adolf, 671.
Schaffter, Edward P., 675.
Schreck, Oscar, 535.
Smith, Eldon, 139.
Smothers, Henry Alva, 279.
Still, Jasper Brett, 279.
Taylor, Walter J., 670.
Thomas, George Henry, 280.
Townsend, John Vincent, 535.
Vennerholm, John, 534.
Volgenau, Ernest Lewis, 278.
Walkington, J. J., 536.
Walkley, Seymour J., 674.
Woodside, James H., 674.
Wrigglesworth, Thomas, 672.
Wright, Samuel Adam, 950.

Papers:

Abortion Disease, Experiences and Results of State Quarantine Against, 333.
Agglutination Test for Pullorum Disease, A Modification of the Rapid, 778.
Agglutination Test for the Diagnosis of Bang's Disease, The Relation of the Time Element to the Results Obtained by the Rapid, 839.
Anemia in Newborn Pigs, Idiopathic, 863.
Anemia in Young Pigs, 356.
Anesthesia in Canines, Some Further Experiments with Lumbar, 560.
Anesthetics for Small Animals: Their Indications and Uses, 759.
Ataxia of Chicks Associated with Nephritis, An, 880.
Bact. Abortus Bang to Fistula and Poll-Evil of Horses, Report of Further Work on the Relation of, 69.
Bacterial Flora of the Intestinal Tube of Normal Young Lambs, 615.
Bang's Disease (Contagious Abortion) in Cattle, Including Treatment and Control, and Its Relation to Undulant Fever in Man, 828.
Bang's Disease, Further Researches on, 342.
Bang's Disease in Range Animals, The Control of, 187.
Bang's Disease, The Relation of the Time Element to the Results Obtained by the Rapid Agglutination Test for the Diagnosis of, 839.
Brucella Melitensis var. *Suis*, The Effect of Pasteurization upon, 336.
Blackleg Immunization, 848.
Calmette-Guérin Method of Vaccinating Animals Against Tuberculosis, Second Report on the, 18.
Carbon Tetrachloride and Tetrachlorethylene, A Comparison of, 600.
Certified Milk? Why, 375.
Coccidiosis, Criteria and Methods in the Investigation of Avian, 474.
Coccidiosis of Poultry, Some Factors in the Control of, 543.
Colic, A Study of Intestinal Parasites in Horses and Mules in Louisiana, with Special Reference to the Control of, 11.
Deficiency Problems in Cattle, 52.
Diet of Dogs, A Consideration of the, 158.
Distemper, Meningo-Cerebral Complications in Canine, 745.
Distemper: I. The Bacteriology of One Hundred Naturally Infected Cases, Studies on Canine, 729.
Ewe Before and After the Lambing Period, The Care of the, 197.
Eye and Accessory Organs, Treatment of the Diseases of the, 751.
Fistula and Poll-Evil of Horses, Report of Further Work on the Relation of *Bact. Abortus* Bang to, 69.
Food Hygiene, Problems of Tuberculosis Control and Its Relation to Sanitary Science and, 96.
Foot-and-Mouth Disease and Vesicular Stomatitis, 39.
Fowl-Pox Vaccination at Various Ages and Its Effect upon Normal Growth Gains, 236.
Fowl-Pox Vaccination, The Ohio Plan of, 505.
Foxes and Their Treatment, Parasites of Ranch, 202.
Fractures, The Treatment of, 149.
Hatchability of Eggs and the Livability of Chicks of Pullorum-Infected and Non-Infected Hens, The, 229.
Hog Cholera and Its Prevention by Quarantine, Observations on the Transmissibility of, 886.
Hog Cholera, Histological Studies on, 225.
Iodin, Comparative Germicidal Tests of Mercurochrome and Tincture of, 87.
Iodin in Cattle Practice, The Value of, 686.
Johne's Disease, Problems in Controlling and Eradicating, 446.
Kamala for Tapeworms in Chickens, The Anthelmintic Value of, 895.
Lambs, Bacterial Flora of the Intestinal Tube of Normal Young, 615.
Laryngotracheitis, Blood-Cell Counts in Acute Avian, 909.
Laryngotracheitis (Infectious Bronchitis) of Chickens, Studies of the Etiology of, 496.
Leukemia of Fowls, Studies of, 791.
Meat Inspection, City, 379.
Meningo-Cerebral Complications in Canine Distemper, 745.
Mercurochrome and Tincture of Iodin, Comparative Germicidal Tests of, 87.
Mexico and Its Sanitary Problems, The Live Stock Industry in, 305.
Museums of Pathology, The Need for Better, 904.
Nephritis, An Ataxia of Chicks Associated with, 880.
Parasites, County-Wide Eradication of Equine, 213.
Parasites in Horses and Mules in Louisiana, with Special Reference to the Control of Colic, A Study of Intestinal, 11.
Parasites of Ranch Foxes and Their Treatment, 202.
Pasteurization of All City Milk, The Advantages and Disadvantages of, 370.
Pasteurization upon *Brucella Melitensis* var. *Suis*, The Effect of, 336.
Placenta in the Cow, Clinical Studies on Retained, 59.
Pneumonia in Sheep, Some Bipolar Organisms Found in, 711.
Pregnancy in the Mare, A Practical Method for the Diagnosis of, 604.
Prolapse (Blow-Outs), Observations on, 80.
Pullorum Disease, A Modification of the Rapid Agglutination Test for, 778.

Pullorum-Infected and Non-Infected Hens, The Hatchability of Eggs and the Livability of Chicks of, 229.
Quarantine Against Abortion Disease, Experiences and Results of State, 333.
Salmonella Pullorum Antigen, A Note on the Keeping Quality of, 634.
Salmonella Pullorum, A Variant Occurring Naturally in Cultures of, 000.
Salmonella Pullorum Infection in Hens, and Observations on the Diagnostic Efficiency of Test Methods, The Relation of Agglutination Reaction to, 491.
Sanitation and Its Relation to Swine Disease Control, Hog-Lot, 720.
Sheep Diseases, Field and Experimental Studies of, 697.
Shipping Fever in Kansas, An Epizoölogical Study of, 165.
Shipping Fever, Preliminary Bacteriological Report on, 173.
Skin Diseases of Dogs, Non-Parasitic, 30.
Skin-Lesion and No-Visible-Lesion Tuberculin-Reacting Cattle, A Study of So-Called, 414.
Stomatitis, Foot-and-Mouth Disease and Vesicular, 39.
Stomatitis, Investigations on the Passive Immunization of Small Animals in Vesicular, 579.
Swine Disease Control, Hog-Lot Sanitation and Its Relation to, 720.
Swine Disease Control, Problems Confronting Practitioners in, 360.
Tapeworms in Chickens, The Anthelmintic Value of Kamala for, 895.
Tetrachlorethylene, A Comparison of Carbon Tetrachloride and, 600.
Tubercle Bacillus, Recent Research Throws Some New Light on the, 436.
Tuberculosis Control and Its Relation to Sanitary Science and Food Hygiene, Problems of, 96.
Tuberculosis Eradication Work, Progress of Coöperative, 399.
Tuberculosis, Progress in Controlling Bovine, 625.
Tuberculin-Reacting Cattle, A Study of So-Called Skin-Lesion and No-Visible-Lesion, 414.
Tuberculosis in Animals and Man, 914.
Tuberculosis of Turkeys, Studies of, 765.
Tuberculosis, Second Report on the Calmette-Guérin Method of Vaccinating Animals Against, 18.
Tuberculosis, The Control of Avian, 386.
Undulant Fever in Man, Bang's Disease (Contagious Abortion) in Cattle, Including Treatment and Control, and Its Relation to, 828.
Virus Diseases of Fowls, Studies of Some, 782.
Worm Infestation in Poultry, The Effects, Treatment and Prevention of, 467.

Personals.....141, 266, 281, 678, 818, 951.

Publications Received....265, 578, 777, 930.